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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/765,249

01/27/2004

Reiner Fischer

Mo7424D/LeA 34,320

9562

34469

7590

05/17/2006

BAYER CROPSCIENCE LP

Patent Department

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EXAMINER

PRYOR, ALTON NATHANIEL

ART UNIT

PAPER NUMBER

1616

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/765,249

Applicant(s)

FISCHER ET AL.

Examiner

Alton N. Pryor

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 01 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 7-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 7-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Applicant's arguments filed 3/1/06 have been fully considered but they are not persuasive. See new 112 1st paragraph and corrected 103(a) rejections below.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7,8,10,11,13,14 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

For rejections under 35 U.S.C. 112, first paragraph, the following factors must be considered (In re Wands, 8 USPQ2d 1400, 1404 (CAFC, 1988)):

- 1) Nature of invention.
- 2) State of prior art.
- 3) Quantity of experimentation needed to make or use the invention based on the content of the disclosure
- 4) Level of predictability in the art.
- 5) Amount of direction and guidance provided by the inventor.
- 6) Existence of working examples.
- 7) Breadth of claims.
- 8) Level of ordinary skill in the art.

Art Unit: 1616

See below:

1) Nature of the invention.

The nature of the invention are compositions / methods employing compounds of formula (I) as insecticides.

2) State of the prior art and the predictability or lack thereof in the art.

The state of the prior art is that it involves screening *in vitro* and *in vivo* to determine which compounds exhibited the desired activities (i.e. what compounds are effective in controlling insects). There is no absolute predictability even in view of the seemingly high level of skill in the art. The existence of these obstacles establishes that the contemporary knowledge in the art would prevent one of ordinary skill in the art from accepting any regimen on its face. The instant claimed invention is highly unpredictable as discussed below:

It is noted that the pesticidal art is unpredictable, requiring each embodiment to be individually assessed for insecticidal activity. *In re Fisher*, 427 F.2d 833, 166 USPQ 18 (CCPA 1970) indicates that the more unpredictable an area is, the more specific enablement is necessary in order to satisfy the statute. Further, their mode of action is often unknown or very unpredictable and administration of the compound can be accompanied by undesirable results.

Thus, in the absence of a showing of correlation between all classes of claimed compounds of formula (1) in the invention and insect control, one of ordinary skill in the art is unable to fully predict possible results from the administration of the compounds due to the unpredictability of the role of the huge number of compounds set forth in the claims.

3) Quantity of experimentation needed to make or use the invention based on the content of the disclosure.

The quantity of experimentation needed is undue experimentation. One of ordinary skill in the art would first need to determine which compounds would be suitable for controlling insects.

5) Amount of direction and guidance provided by the inventor.

The amount of direction or guidance present is found in 132 declaration provided by the Applicant. Applicant provides data for instant invention comprising the compounds of formula 1 where X, Y, Z = alkyl; A and B together form an optionally substituted C3-C8 carbocyclic ring; and G = -CO-alkyl .

6) Existence of working examples.

Working examples are found in the declaration wherein insecticidal activity is provided for the invention comprising spiromesifen in combination with diafenthiuron. Applicant's limited working example does not enable one of ordinary skill in the art to control insects with all of the other class of compounds of formula (1) instantly claimed.

7) Breadth of claims.

Claims are extremely broad due to the vast number of possible compounds of formula (1) encompassed by the instant invention.

8) Level of ordinary skill in the art.

The level of ordinary skill in the art is high. Due to the unpredictability in the pesticidal / insecticidal art, it is noted that each embodiment of the invention is required to be individually assessed for insecticidal / pesticidal activity by *in vitro* and *in vivo* screening to determine which compounds exhibit the desired insecticidal / pesticidal activity.

Hence, the specification fails to provide sufficient support of the use of all the compounds of the claims for pest control. As a result necessitating one of ordinary skill

in the art to perform an exhaustive search to determine which compounds of the instant claims would be effective in insect control in order to practice the claimed invention.

Genentec Inc. V. Novo Nordisk A/S (CAFC) 42 USPQ 2D 1001, states that:

“a patent is not a hunting license. It is not a reward for search, but compensation for its successful conclusion” and “[p]atent protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable”.

Therefore, in view of the Wands factors, and *In re Fisher* (CCPA 1970) discussed above, to practice the claimed invention herein, a person of ordinary skill in the art would have to engage in undue experimentation to test each class of compounds encompassed in instant claims, with no assurance of success.

The above list is by no means complete, but demonstrates the extraordinary breadth of claims with respect to insect control using compounds of formula (1) in instant invention. It establishes that it is not reasonable to any compound to be able to control insects generally.

This rejection may be overcome by reciting specific closely related compounds of formula (1) using spiromesifen as a guide.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 1616

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wachendorff-Neumann (WO 2000042850; 07/27/00) and Ruder et al (Pesticide Biochemistry and Physiology, 1991, 41(2), 207-19). US 6436988 is equivalent to WO 2000042850 and will be used as English translation.

Wachendorff-Neumann teaches a composition for controlling insects, comprising an insecticidal effective amount of I-b-1 plus additives such as extenders and surfactants. See abstract. See abstract, column 1 line 30 – column 2 line 18.

Wachendorff-Neumann teaches a method of preparing the composition comprises mixing the active (I-b-1) with surfactants and extenders. See column 1 – column 2 line 53. Wachendorff-Neumann teaches a method of applying the composition to the insects or their habitats and plants for protection against insects. See claims 1,8. Wachendorff-Neumann does not teach or suggest the invention comprising diafenthiuron. However, Ruder teaches a composition comprising diafenthiuron as a thiourea insecticide/acaricide. Ruder teaches that diafenthiuron functions by inhibiting the mitochondrial respiration by its carbodiimide product. See abstract. In the absence of unexpected results, it would have obvious to one having ordinary skill in the art to have modified the invention of Wachendorff-Neumann to include the diafenthiuron taught by Ruder. One would have been motivated to do this in order to enhance the effectiveness of controlling insect infestation by way of inhibiting mitochondrial respiration. The results provided for the combination of diafenthiuron and spiromesifen in the declaration are not

Art Unit: 1616

convincing of a showing of synergism since the observed data is only 20% more than the calculated.

Election Status

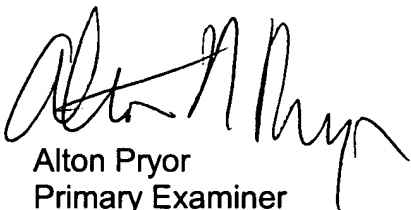
The elected invention comprising I-b-1 and diafenthuron is not allowable. See rejection above.

Telephonic Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alton N. Pryor whose telephone number is 571-272-0621. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Alton Pryor
Primary Examiner
AU 1616